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SPECIFICATION FOR BOOK BINDING CLOTH

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SPECIFICATION FOR BOOK BINDING CLOTH

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Indian Standard

SPECIFICATION FOR BOOK BINDING CLOTH

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 31 May 1983, after the draft finalized by the Cotton and Cotton Products Sectional Committee had been approved by the Textile Division Council.

0.2 Considerable assistance has been taken in the formulation of this standard from the specification 'Cloth, book binding', issued by the Stationary Office, Government of India.

0.3 *Standards of Weights and Measures Act,* 1976 stipulates the use of International System of Units in the country; in order to familiarize the industry with this system, the recommended SI units for use in the textile industry are given in Appendix A.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the constructional details and other particulars of one variety of cotton cloth used for book binding. The cloth may be scoured or dyed.

1.2 This standard does not specify the general appearance, feel, shade, etc of the cloth (*see also* **3.3**).

2. MANUFACTURE

2.1 Yarn — The cotton yarn used in the manufacture of cloth shall be satisfactory in eveness and reasonably free from neps and spinning defects.

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*Rules for rounding off numerical values (*revised*).

2.2 Cloth — The cloth shall be sized and coated with a suitable coating material which shall admit printing and gold embossing. The layer of coating should be even, allowing silk-screen printing to be clean, not smudgy. The quality of coating should be such that ink in the course of serigraphy does not spread the letters retaining their forms. The coating shall not crack nor peel off when the cloth is folded.

2.2.1 The cloth shall adhere firmly to the surface, edges, sharp and round corners of the strawboard cover of the books when bound with binding paste on the uncoated side.

2.2.2 The cloth when visually examined shall be reasonably free from spinning, weaving and processing defects.

3. REQUIREMENTS

3.1 The constructional particulars of the cloth shall conform to those given in Table 1, excepting the count of warp and weft yarns which has been given only for guidance.

3.2 The colour fastness rating of the dyed cloth and other requirements of the cloth shall conform to those given in Table 2.

3.3 Sealed Sample — If in order to illustrate or specify the undeterminable characteristics such as general appearance, lustre, feel, and shade of the cloth, a sample has been agreed upon and sealed, the supply shall be in conformity with the sample in such respects.

3.3.1 The custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller.

4. MARKING

4.1 Each roll of cloth shall have a label marked with the following information:

a) Name of the material;

b) Length and width of the piece;

c) Manufacturer's name, initials or trade-mark; if any; and

d) Year of manufacture.

4.1.1 The label shall be pasted on the roll in such a way that the rolls cannot be bent without tearing the label.

TABLE 1 CONSTRUCTIONAL PARTICULARS OF BOOK BINDING CLOTH

(*Clause* 3.1)

	APPROXIMATE COUNT OF YARN		ENDS/ cm	PICKS/ cm	MASS	BREAKING LOAD ON 5·0 × 20 cm STRIPS, *Min*		BURSTING STRENGTH, *Min* kg/m^2	LENGTH m	WIDTH cm	WEAVE
	Warp	Weft				Warp	Weft				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					g/m^2	N(kgf)	N(kgf)				
	18s (33 tex)	18s (33 tex)	18	13	160	360 (35)	200 (20)	5	20 or as agreed	100 or as agreed	Plain
Tolerance, percent	—	—	± 5	± 5	± 5	—	—	—	—	± 2	—
Method of test	—	—	IS : 1963-1981*	IS : 1964-1970†	IS : 1969-1968‡			IS : 1966-1975§	IS : 1954-1969‖		—

*Methods for determination of threads per unit length in woven fabrics (*second revision*).
†Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*).
‡Method for determination of breaking load and elongation at break of woven textile fabrics (*first revision*).
§Methods for determination of bursting strength and bursting distension of fabrics—Diaphragm method (*first revision*).
‖Methods for determination of length and width of fabrics (*first revision*).

4.1.2 The cloth may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

TABLE 2 OTHER REQUIREMENTS OF BOOK BINDING CLOTH

(*Clause* 3.2)

SL No. (1)	CHARACTERISTIC (2)	REQUIREMENT (3)	METHOD OF TEST (4)
1.	Colour fastness to		
	a) Water	5 or better	IS : 767-1956*
	b) Light	5 or better	IS : 2454-1967†
2.	Coating content (calculated on the mass of the uncoated fabric), percent, *Min*	60	Boiling in water for 2 hours and washing with soap
3.	Pliability	The coating shall not show any tendency to crack	The cloth after conditioning for 2 h at 0°C is folded double and pressed by hand on a flat surface

*Method for determination of colour fastness of textile materials to water.

†Method for determination of colour fastness of textile materials to artificial light (xenon lamp).

5. PACKING

5.1 The cloth shall be packed in roll form. Each roll shall be tightly and evenly wound, free from wrinkles, on a wooden rod (*see* Note) with the coated surface facing inside. Each roll shall be covered completely by a polythene sheet or kraft paper. The two ends of the polythene sheet or kraft paper shall be gummed or tied with cotton tape.

NOTE — The wooden rod shall be of 2 cm diameter and have a length at least 2 cm more than the width of the cloth.

6. SAMPLING

6.1 Lot — The book binding cloth delivered to a buyer against a despatch note shall constitute a lot.

6.2 To ascertain the conformity of a lot, the number of pieces to be selected for inspection shall be according to col 1 and 2 of Table 3. The pieces shall be selected at random and to ensure the randomness of selection, procedure given in IS : 4905-1968* shall be followed.

TABLE 3 SAMPLE SIZE

(*Clause* 6.2)

LOT SIZE (1)	SAMPLE SIZE (2)	PERMISSIBLE NUMBER OF DEFECTIVE PIECES (3)	SUB-SAMPLE SIZE (4)
Up to 100	5	0	2
101 to 150	8	1	3
151 to 500	13	1	5
501 and above	20	2	8

6.3 Number of Test and Criteria for Conformity

Characteristic	*Number of Test*	*Criteria for Conformity*
Visual inspection, ends, picks, mass, length and width.	According to col 2 of Table 3.	Number of defective pieces not to exceed the corresponding number given in col 3 of Table 3.
Breaking load, bursting strength, colour fastness, coating content and pliablility	According to col 4 of Table 3.	All the test specimens satisfy the relevant requirements.

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*Methods for random sampling.

APPENDIX A

(*Clause* 0.3)

RECOMMENDED SI UNITS FOR TEXTILES

Sl No.	Characteristic	SI Unit(s)		Application
		Unit(s)	Abbreviation(s)	
(1)	(2)	(3)	(4)	(5)
1)	Length	Millimetre	mm	Fibres
		Millimetre, centimetre	mm, cm	Samples, test specimens (as appropriate)
		Metre	m	Yarns, ropes, cordage, fabrics
2)	Width	Millimetre	mm	Narrow fabrics
		Centimetre	cm	Other fabrics
		Millimetre, centimetre	mm, cm	Samples, test specimens (as appropriate)
				Carpets, druggets, *DURRIES* (as appropriate)
3)	Thickness	Micrometre (micron)	µm	Delicate fabrics
		Millimetre	mm	Other fabrics, carpets, felts
4)	Linear density	Tex	tex	Yarns
		Millitex	mtex	Fibres
		Decitex	dtex	Filaments, filament yarns
		Kilotex	ktex	Slivers, ropes, cordage
5)	Diameter	Micrometre (micron)	µm	Fibres
		Millimetre	mm	Yarns, ropes, cordage
6)	Circumference	Millimetre	mm	Ropes, cordage
7)	Threads in fabric:			Woven fabrics (as appropriate)
	a) Lengthwise	Number per centimetre	ends/cm	—
		Number per decimetre	ends/dm	
	b) Widthwise	Number per centimetre	picks/cm	—
		Number per decimetre	picks/dm	
8)	Warp threads in loom	Number per centimetre	ends/cm	Reeds
9)	Stitches in knitted fabric:	—	—	Knitted fabrics (as appropriate)
	a) Lengthwise	Courses per centimetre	courses/cm	—
		Courses per decimetre	courses/dm	
	b) Widthwise	Wales per centimetre	wales/cm	—
		Wales per decimetre	wales/dm	

SL No.	CHARACTERISTIC	SI UNIT(S)		APPLICATION
		Unit(s)	Abbreviation(s)	
(1)	(2)	(3)	(4)	(5)
10)	Stitch length	Millimetre	mm	Knitted fabrics, made-up items
11)	Mass per unit area	Grams per square metre	g/m^2	Fabrics
12)	Mass per unit length	Grams per metre	g/m	Fabrics
13)	Twist	Turns per centimetre	turns/cm	Yarns, ropes, cordage (as appropriate)
		Turns per metre	turns/m	
14)	Test or gauge length	Millimetre, centimetre	mm, cm	Fibre, yarn and fabric specimens (as appropriate)
15)	Breaking load	Millinewton	mN	Fibres, delicate yarns (individual or skeins)
		Newton	N	Strong yarns (individual or skeins), ropes, cordage, fabrics
16)	Breaking length	Kilometre	km	Yarns
17)	Tenacity	Millinewton per tex	mN/tex	Fibres, yarns (individual or skeins)
18)	Twist factor or twist multiplier	Turns per centimetre × square root of tex	$\text{turns/cm} \times \sqrt{\text{tex}}$	Yarns (as appropriate)
		Turns per metre × square root of tex	$\text{turns/m} \times \sqrt{\text{tex}}$	
19)	Bursting strength	Newton per square centimetre	N/cm^2	Fabrics
20)	Tear strength	Millinewton	mN	Fabrics (as appropriate)
		Newton	N	
21)	Pile height	Millimetre	mm	Carpets
22)	Pile density	Mass of pile yarn in grams per square metre per millimetre pile height	$g/m^2/mm$ pile height	Pile carpets
23)	Elastic modulus	Millinewton per tex per unit deformation	mN/tex/unit deformation	Fibres, yarns, strands

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

QUANTITY	UNIT	SYMBOL
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

QUANTITY	UNIT	SYMBOL
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

QUANTITY	UNIT	SYMBOL	DEFINITION
Force	newton	N	1 N = 1 kg.m/s^2
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m^2
Frequency	hertz	Hz	1 Hz = 1 c/s (s^{-1})
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m^2

AMENDMENT NO. 1 AUGUST 2002
TO
IS 10582 : 1983 SPECIFICATION FOR BOOK BINDING CLOTH

[*Page* 6, *Table* 2, *col* 3, *Sl No.* 1 (a) *and* (b)] — Substitute '4 or better' *for* '5 or better'.

(TX 31)

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